



Winston H. Hickox  
Agency Secretary

# Air Resources Board

Alan C. Lloyd, Ph.D.  
Chairman

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Gray Davis  
Governor

June 6, 2003

Dr. Mike Tripodi  
CleanAIR Systems  
4379 Center Place  
Santa Fe, New Mexico 87505

Reference # RAS-03-19

Dear Dr. Tripodi:

The Air Resources Board (ARB) has reviewed your application for the verification of the PERMIT™. Based on the evaluation of the data provided, the ARB hereby verifies that the PERMIT™ reduces emissions of diesel particulate matter (PM) by 85 percent or greater for use in stationary emergency generators with engines listed in the enclosure. The PERMIT™ is therefore verified as a Level 3 diesel emission control device.

The aforementioned verification is valid provided the following operating criteria are met:

Application	Stationary emergency generators
Maximum consecutive minutes at idle	240 minutes
Number of 10 minute idle sessions before regeneration is required	Regeneration recommended after 12 consecutive sessions; required after 24
Minimum temperature/load/time requirements for regeneration in 4-stroke engine	300° Celsius for 30% of operating time or 2 hours, whichever is longer. For most engines, 40% load results in temperature of at least 300° Celsius
Number of hours of operation before cleaning/disposal of filter	5000 hours under normal operating conditions
Fuel	Diesel sulfur content must not exceed 15 parts per million by weight
PM emission/certification level	Equal or less than 0.1 g/bhp-hr (as tested on an appropriate steady-state certification cycle outlined in the ARB off-road regulations – similar to ISO 8178 D2)
Cycle	Four-stroke

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

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Since there may be significant variations from application to application, CleanAIR has indicated that it will review actual operating conditions (duty cycle, baseline emissions, exhaust temperature profiles, and engine backpressure) prior to retrofitting an engine with the PERMIT™ to ensure compatibility.

Furthermore, the engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer. CleanAIR must install the HIBACK, a backpressure monitor, and indicator light on all engines retrofitted with a PERMIT™.

The ARB hereby assigns the PERMIT™ the designated family name of:

**CA/CAS/2003/PM3/N00/ST/DPF01**

This identification number should be used in reference to this verification as part of the system labeling requirement.

Thank you for participating in ARB's diesel emission control strategy verification program. Should you have any questions or comments, please contact Ms. Annette Hebert, Branch Chief, Heavy-Duty Diesel In-Use Strategies Branch, at (626) 575-6973.

Sincerely,

/S/

Robert H. Cross, Chief  
Mobile Source Control Division

Enclosure